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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,391	08/26/2003	Nien-Lun Li	BHT-3230-66	1919

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EXAMINER
VERDIER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
3745	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,391	LI ET AL.	
	Examiner	Art Unit	
	Christopher Verdier	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 29, 2006 has been entered.

The specification has been amended to correct most of the informalities set forth in the previous Office action, and to overcome the objection as failing to provide proper antecedent basis for the claimed subject matter as set forth in the previous Office action. The claims have been amended to overcome the rejections under 35 USC 112, second paragraph set forth in the previous Office action. Correction of these matters is noted with appreciation.

Applicant's arguments that Horng 6,561,762 does not disclose that the support bars are integrally formed with the housing, and does not disclose five guiding ribs has been carefully considered. These arguments are agreed with. Horng (figures 6 and 8) also does not disclose that each of the plurality of guiding ribs is uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan.

Applicant's argument that Grignon 4,482,302 does not teach that the support arms 2 are integrally formed with the frame housing is not persuasive. Column 5, lines 24-28 of Grignon state that the assembly consisting of the fan housing 101, supporting arms 102, and unnumbered

motor casing (see figure 6) is fabricated by molding from a light alloy. Alternatively, Harmsen 6,017,191 teaches a fan with support arms 14 integrally formed with a housing 6 by die casting in one piece. With regard to Applicant's argument that Grignon does not disclose five guiding ribs, Rubenstein 7,021,895 teaches this feature. Applicant's argument that Grignon does not teach that the first ends of the two inclined flat surfaces are closer a center of the frame body than the second ends of the two inclined flat surfaces is disagreed with. As seen in figure 6 of Grignon, the first ends of the two inclined flat surfaces of the guiding ribs 102 are closer to a center near 104 of the frame body than the second ends of the two inclined flat surfaces. Note that in figure 6, which corresponds to figures 1-2 and 4 of Grignon, the support arms 2 are of a cross section having two inclined flat surfaces. See column 3, lines 19-22. The flat surfaces are located on opposing sides thereof, with the two inclined flat surfaces having unnumbered first ends (nearest to the impeller 107) spaced apart a first distance that is less than a second distance between unnumbered second ends thereof, with the first ends of the two inclined flat surfaces being located between the fan blade and the second ends of the two inclined flat surfaces

Applicant's argument that Hopfensperger discloses interfering bodies 2 that are not uniformly curved is persuasive. Applicant has further argued that it is improper to arbitrarily pick and choose prior art patents and combine selected portions of the selected patents on the basis of Applicant's disclosure to create a hypothetical combination which allegedly renders a claim obvious, unless there is some direction in the selected patents to combine the selected teachings in a manner to negate the patentability of the claimed subject matter, citing *In re Rothermel and Waddell*, 125 USPQ 328 (CCPA 1960), *Orthopedic Equipment Company Inc. v.*

United States, 217 USPQ 193 (Fed. Cir. 1983), and *In re Geiger*, 2 USPQ2d 1276 (Fed. Cir. 1987). Applicant has further argued that there is no suggestion in the prior art references to combine them in the proposed manner. These arguments are not persuasive. In response to applicant's argument that there is no suggestion to combine the references and that the proposed combination arbitrarily picks and chooses prior art patents, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would have been motivated to make the proposed combination of the primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re Simon*, 174 USPQ 114 (CCPA 1972); *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). The claims are directed to a combination of conventional features including the guiding ribs being integrally formed with the frame body which is either disclosed by Grignon or alternatively taught by Harmsen, for the purpose of simplifying manufacture of the fan and reducing the number of separate parts, as well as the plurality of guiding ribs each being uniformly curved along the length which is taught by Kamada 6,503,060, for the purpose of reducing pressure loss or noise resulting from vortexes.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Taiwan on July 2, 2003. It is noted, however, that applicant has not filed a certified copy of the Taiwanese application as required by 35 U.S.C. 119(b).

Specification

The disclosure is objected to because of the following informalities: Appropriate correction is required.

In the replacement paragraph beginning on page 1, at line 11, -- comprises -- should be inserted after "fan" (first occurrence).

The amendment filed September 29, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

In the replacement paragraph beginning on page 7, at line 3, the statement in the last two sentences that the guiding ribs 22 are preferably integrally formed with the frame body, and more preferably, the plural plurality of guiding ribs are five guiding ribs, adds new matter by using the underlined terms preferably and more preferably, since the use of these terms does not positively

require that the guiding ribs are integrally formed with the frame body and that there are five guiding ribs, but makes these features optional, which adds new matter. The underlined terms preferably and more preferably should be deleted in order to correct this.

Applicant is required to cancel the new matter in the reply to this Office Action.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 3, lines 15-16, which recite that each of the plurality of guiding ribs are uniformly curved along a length, has no antecedent basis in the specification for the underlined term.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grignon 4,482,302 in view of Kamada 6,503,060. Grignon (figure 6) discloses a fan substantially as claimed, comprising a frame body 101 having a hole 109, an unnumbered supporting part having a pivot (unnumbered, corresponding to 3 in figure 1) and a plurality of guiding ribs 102, the supporting part being connected to the frame body by the plurality of guiding ribs, and a fan blade (not numbered, connected to impeller 107) connected to the pivot, wherein each of the plurality of guiding ribs has a cross section having two inclined flat surfaces. In figure 6, which corresponds to figures 1-2 and 4 of Grignon, the support arms 102 are of a cross section having two inclined flat surfaces, as shown by the triangular cross section in figure 4. See column 3, lines 19-22. Note that the embodiment of figure 6 is the embodiment of figures 1-2 and 4, turned over. See column 5, lines 47-51. The flat surfaces are located on opposing sides thereof, the two inclined flat surfaces having unnumbered first ends (nearest to the impeller 107) spaced apart a first distance that is less than a second distance between unnumbered second ends thereof (near 102 in figure 6), the first ends of the two inclined flat surfaces being located between the fan blade and the second ends of the two inclined flat surfaces. As seen in figure 6, the first ends of the two inclined flat surfaces are closer to a center near 104 of the frame body than the second

ends of the two inclined flat surfaces. As set forth in column 5, lines 24-28, the assembly consisting of the fan housing, supporting arms, and motor casing is fabricated by molding from a light alloy. Therefore, each of the guiding ribs 102 are integrally formed with the frame body 101.

However, Grignon does not disclose that each of the plurality of guiding ribs are uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan.

Kamada (figure 3) shows a fan 6 having plural guiding ribs 41 that are each uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan, located at the outlet of the fan, for the purpose of reducing pressure loss or noise resulting from vortexes.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the fan in figure 6 of Grignon such that each of the plurality of guiding ribs are uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan, as taught by Kamada, for the purpose of reducing pressure loss or noise resulting from vortexes.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grignon 4,482,302 and Kamada 6,503,060 as applied to claim 4 above, and further in view of Rubenstein 7,021,895.

The modified fan of Grignon shows all of the claimed subject matter including the plural guiding ribs radiating from the central pivot at equal intervals, but does not show that there are five guiding ribs.

Rubenstein shows a fan having a rear grill 210 that has five unnumbered ribs that are uniformly curved along a length thereof, as a number of ribs that one skilled in the art would consider as acceptable for the fan.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan in figure 6 of Grignon such that there are five guiding ribs, as taught by Rubenstein, as a number of ribs that one skilled in the art would consider as acceptable for the fan.

Claims 3-4 are also alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Grignon 4,482,302 in view of Harmsen 6,017,191 and Kamada 6,503,060. Grignon (figure 6) discloses a fan substantially as claimed, comprising a frame body 101 having a hole 109, an unnumbered supporting part having a pivot (unnumbered, corresponding to 3 in figure 1) and a plurality of guiding ribs 102, the supporting part being connected to the frame body by the plurality of guiding ribs, and a fan blade (not numbered, connected to impeller 107) connected to the pivot, wherein each of the plurality of guiding ribs has a cross section having two inclined flat surfaces. In figure 6, which corresponds to figures 1-2 and 4 of Grignon, the support arms 102 are of a cross section having two inclined flat surfaces, as shown by the triangular cross

section in figure 4. See column 3, lines 19-22. Note that the embodiment of figure 6 is the embodiment of figures 1-2 and 4, turned over. See column 5, lines 47-51. The flat surfaces are located on opposing sides thereof, the two inclined flat surfaces having unnumbered first ends (nearest to the impeller 107) spaced apart a first distance that is less than a second distance between unnumbered second ends thereof (near 102 in figure 6), the first ends of the two inclined flat surfaces being located between the fan blade and the second ends of the two inclined flat surfaces. As seen in figure 6, the first ends of the two inclined flat surfaces are closer to a center near 104 of the frame body than the second ends of the two inclined flat surfaces. As set forth in column 5, lines 24-28, the assembly consisting of the fan housing, supporting arms, and motor casing is fabricated by molding from a light alloy.

However, Grignon does not explicitly disclose that each of the guiding ribs is integrally formed with the frame body, and does not disclose that each of the plurality of guiding ribs are uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan.

Harmsen shows an axial fan having guiding ribs 4/14 that are each integrally formed with a frame body 6 via a one-piece molding of metal (column 1, lines 58-67 and column 2, lines 1-2), for the purpose of simplifying manufacture of the fan and reducing the number of separate parts.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the fan in figure 6 of Grignon such that each of the guiding ribs is integrally formed with the frame body, as taught by Harmsen, for the purpose of simplifying manufacture of the fan and reducing the number of separate parts.

Kamada (figure 3) shows a fan 6 having plural guiding ribs 41 that are each uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan, located at the outlet of the fan, for the purpose of reducing pressure loss or noise resulting from vortexes.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan in figure 6 of Grignon such that each of the plurality of guiding ribs are uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan, as taught by Kamada, for the purpose of reducing pressure loss or noise resulting from vortexes.

Claim 5 is also alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Grignon 4,482,302 and Harmsen 6,017,191 and Kamada 6,503,060 as applied to claim 4 above, and further in view of Rubenstein 7,021,895. The modified fan of Grignon shows all of the claimed subject matter including the plural guiding ribs radiating from the central pivot at equal intervals, but does not show that there are five guiding ribs.

Rubenstein shows a fan having a rear grill 210 that has five unnumbered ribs that are uniformly curved along a length thereof, as a number of ribs that one skilled in the art would consider as acceptable for the fan.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan in figure 6 of Grignon such that there are five guiding ribs, as taught by Rubenstein, as a number of ribs that one skilled in the art would consider as acceptable for the fan.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fujinaka is cited to show a fan having a frame body with integrally formed guiding ribs.

Tsubakida (figure 12) is cited to show a fan having a plurality of guiding ribs that are uniformly curved along a length thereof in a direction corresponding to a direction of air blown from the fan.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C.V.
October 11, 2006

Christopher Verdier
Primary Examiner
Art Unit 3745